OPERATION OF THE PHENIX-MUID PANEL HV SYSTEM IN BUILDING 905

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Hand Processed Changes

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REVISION CONTROL SHEET

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A	First Issue	3/26/1998	n/a	K. Read, W. McCabe, A. Etkin	n/a
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1.0 Purpose and Scope

This procedure provides instruction for starting up and shutting down of the high voltage system at a PHENIX-MUID table panel assembly area in building 905, or at a small panel QA area in the Bldg. 902 Annex.

2.0 Responsibilities

2.1 Operator is responsible for conducting the procedures and logging of the gas and the high voltage operation.

3.0 Prerequisites

3.1 Operator shall have completed BNL compressed gas and electrical safety training.

3.2 Operator shall be designated as being cognizant of proper operating practices by the technical supervisor.

3.3 A perimeter around the table made of caution rope shall be used to keep personnel at least one foot away from the electronics when the HV is on.

3.4 Signs and a light indicating the presence of HV will be in place on the perimeter.

3.5 A two-person watch shall be used when HV is on.

3.6 A grounding plug shall be used to verify release of stored energy before entering area.

4.0 Precautions

4.1 All of the high voltage supplies shall be turned off prior to entering the table area.

5.0 Procedure

5.1 Apply high voltage for preamp test

Note: Unattended mode shall not be allowed for this procedure.

5.1.1 Operator shall verify that the main power of the HV is off.

5.1.2 Operator shall verify that all preamp card square HV (Bindi) connectors are either inserted into the proportional tubes OR are connected to empty mating square (Bindi) connectors so that no pins are exposed.

5.1.3 Operator shall verify that the preamplifier board has been tested and inspected and, in particular, has received its conformal coating.

5.1.4 The preamplifier board shall be oriented so that the HV bus traces are on the underneath side of the board.

5.1.5 Operator shall exit the table area and close the perimeter.

5.1.6 Operator shall verify no one is in the table area.

5.1.7 Operator shall turn on the main power of the HV supply.

5.1.8 Operator shall turn on the main power of the LV supply (if required).

5.1.9 Operator shall bring up the HV supply to the operating voltage (nominally 4500V) for all channels.

5.1.10 Operator shall turn on the LV supply.

5.2 Perform test

5.2.1 Operator shall perform preamp chain test (if necessary) as described in the section "Testing Installed Amplifiers" of the PHENIX MuID construction procedure documents (see section 7.0 below, available in building 905).

5.2.2 Operator shall perform panel singles rate test (if necessary) as described in the "Singles Rate Test" of the PHENIX MuID construction procedure documents (see section 7.0 below, available in Building 905.)

5.3 Shut down HV

5.3.1 Operator shall bring down HV for all channels to zero.

5.3.2 Operator shall turn off the HV power supply.

5.3.3 Operator shall turn off the LV supply.

5.3.4 Operator shall wait 60 seconds for capacitors to discharge through the bleeding resistors.

5.3.5 Operator shall apply grounding plug to HV cable to verify release of stored energy.

5.3.6 The QA area shall be ready to be accessed.

6.0 Documentation

6.1 Documentation shall be kept in the System Operator's Logbook in Building 905.

7.0 References

7.1 All the PHENIX MUID construction procedure documents can be found through PHENIX MUID Factory WEB page http://riksg01.rhic.bnl.gov/muid/. A hardcopy of those documents are also kept in the specific work areas in building 905.